

## Watershed Protection Extension, 2002

### Amend § 895.1. Definitions.

"Bankfull stage" means the stage that occurs when discharge fills the entire channel cross section without significant inundation of the adjacent floodplain, and has a recurrence interval of 1.5 to 2.0 years.

"Beneficial Functions of Riparian Zone" means the specific role of the riparian zone to provide protection for water temperature control, streambed and flow modification by large woody debris, filtration of organic and inorganic material, upslope stability, bank and channel stabilization and vegetative structure diversity for fish and wildlife habitat.

"Channel zone" means that area that includes a watercourse's channel at bankfull stage and a watercourse's floodplain, encompassing the area between the watercourse transition lines.

"Inner Gorge" means a geomorphic feature formed by coalescing scars originating from landsliding and erosional processes caused by active stream erosion. The feature is identified as that area beginning immediately adjacent to the stream channel below the first break in slope.

"Saturated soil conditions" means that site conditions are sufficiently wet that timber operations displace soils in yarding or mechanical site preparation areas or displace road and landing surface materials in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or in downstream Class I, II, III, or IV waters that is visible or would violate applicable water quality requirements.

In yarding and site preparation areas, this condition may be evidenced by: a) reduced traction by equipment as indicated by spinning or churning of wheels or tracks in excess of normal performance, b) inadequate traction without blading wet soil, c) soil displacement in amounts that cause visible increase in turbidity of the downstream waters in a receiving Class I, II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or d) creation of ruts greater than would be normal following a light rainfall.

On logging roads and landing surfaces, this condition may be evidenced by a) reduced traction by equipment as indicated by spinning or churning of wheels or tracks in excess of normal performance, b) inadequate traction without blading wet soil, c) soil displacement in amounts that cause visible increase in turbidity of the downstream waters in receiving Class I, II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, d) pumping of road surface materials by traffic, or e) creation of ruts greater than would be created by traffic following normal road watering, which transports surface material to a drainage facility that discharges directly into a watercourse.

Soils or road and landing surfaces that are hard frozen are excluded from this definition.

"Stable operating surface" means that throughout the period of use, the operating surface of a logging road or landing does not either (1) generate waterborne sediment in amounts sufficient to cause a turbidity increase in downstream Class I, II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters or, that is visible or would violate applicable water quality requirements; or (2) channel water for more than 50 feet that is discharged into Class I, II, III, or IV waters.

"Watercourse or Lake Transition Line"

(a) for a watercourse with an unconfined channel (a channel with a valley to width ratio at bankfull stage of 4 or greater) means that line defined by the landward margin of the most active portion of the channel zone area readily identified in the field by riverine hardwood and conifer trees at least twenty-five (25) years in age at breast height.

1 (b) for a watercourse with a confined channel means that line that is the outer boundary of a watercourse's  
2 20-year return interval flood event floodplain. This outer boundary corresponds to an elevation equivalent to twice the  
3 maximum depth of the adjacent riffle at bankfull stage. The bankfull stage elevation shall be determined by field  
4 indicators and may be verified by drainage area/bankfull discharge relationships.

5 (c) for a lake, it is that line closest to the lake where riparian vegetation is permanently established.

6 "Watersheds with threatened or impaired values" means any planning watershed where populations of  
7 anadromous salmonids that are listed as threatened, endangered, or candidate under the State or Federal  
8 Endangered Species Acts with their implementing regulations, are currently present or can be restored.

9 The amendments to 14 CCR § 895.1 adopted on March 15, 2000 and April 4, 2000, which became effective  
10 July 1, 2000, shall expire on December 31, ~~2002~~ 2003.

11 Note: Authority cited: Sections 4551, 4551.5, 4553, 4561, 4561.5, 4561.6, 4562, 4562.5, 4562.7 and 4591.1, Public  
12 Resources Code. Reference: Sections 4512, 4513, 4526, 4551, 4551.5, 4561, 4561.6, 4562, 4562.5, 4562.7,  
13 4583.2, 4591.1, 21001(f), 21080.5, 21083.2 and 21084.1, Public Resources Code; CEQA Guidelines Appendix K  
14 (printed following Section 15387 of Title 14 Cal.Code of Regulations ), and *Laupheimer v. State* (1988) 200  
15 Cal.App.3d 440; 246 Cal.Rptr. 82.

#### 16 **Amend § 898 Feasibility Alternatives**

17 After considering the rules of the Board and any mitigation measures proposed in the plan, the RPF shall  
18 indicate whether the operation would have any significant adverse impact on the environment. On TPZ lands, the  
19 harvesting per se of trees shall not be presumed to have a significant adverse impact on the environment. If the RPF  
20 indicates that significant adverse impacts will occur, the RPF shall explain in the plan why any alternatives or  
21 additional mitigation measures that would significantly reduce the impact are not feasible.

22 Cumulative impacts shall be assessed based upon the methodology described in Board Technical Rule  
23 Addendum Number 2, Forest Practice Cumulative Impacts Assessment Process and shall be guided by standards of  
24 practicality and reasonableness. The RPF's and plan submitter's duties under this section shall be limited to closely  
25 related past, present and reasonably foreseeable probable future projects within the same ownership and to matters  
of public record. The Director shall supplement the information provided by the RPF and the plan submitter when  
necessary to insure that all relevant information is considered.

When assessing cumulative impacts of a proposed project on any portion of a waterbody that is located  
within or downstream of the proposed timber operation and that is listed as water quality limited under Section 303(d)  
of the Federal Clean Water Act, the RPF shall assess the degree to which the proposed operations would result in  
impacts that may combine with existing listed stressors to impair a waterbody's beneficial uses, thereby causing a  
significant adverse effect on the environment. The plan preparer shall provide feasible mitigation measures to reduce  
any such impacts from the plan to a level of insignificance, and may provide measures, insofar as feasible, to help  
attain water quality standards in the listed portion of the waterbody.

The Director's evaluation of such impacts and mitigation measures will be done in consultation with the  
appropriate RWQCB.

(a) The amendments to 14 CCR § 898 that became effective July 1, 2000, shall expire on December 31,  
~~2002~~ 2003.

Note: Authority cited: Sections 4551 and 4553, Public Resources Code. Reference: Sections 4512, 4513, 4551.5,  
and 4582.75, Public Resources Code; and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246 Cal.Rptr. 82.

**Amend §§ 914.8, 934.8, and 954.8 Tractor Road Watercourse Crossing**

Watercourse crossing facilities on tractor roads shall be planned, constructed, maintained, and removed according to the following standards:

(a) The number of crossings shall be kept to a minimum. Existing crossing locations shall be used wherever feasible.

(b) A prepared watercourse crossing using a structure such as a bridge, culvert, or temporary log culvert shall be used to protect the watercourse from siltation where tractor roads cross a watercourse in which water may be present during the life of the crossing.

(c) Crossing facilities on watercourses that support fish shall allow for unrestricted passage of all life stages of fish that may be present, and for unrestricted passage of water. Such crossing facilities shall be fully described in sufficient clarity and detail to allow evaluation by the review team and the public, provide direction to the LTO for implementation, and provide enforceable standards for the inspector.

(d) Watercourse crossing facilities not constructed to permanent crossing standards on tractor roads shall be removed before the beginning of the winter period. If a watercourse crossing is to be removed, it shall be removed in accordance with 14 CCR 923.3(d) [943.3(d), 963.3(d)].

(e) If the watercourse crossing involves a culvert, the minimum diameter shall be stated in the THP and the culvert shall be of a sufficient length to extend beyond the fill material.

(f) Consistent with the protection of water quality, exceptions may be provided through the Fish and Game Code and shall be indicated in the plan.

(g) The amendments to 14 CCR §§ 914.8, 934.8, and 954.8 that became effective July 1, 2000, shall expire on December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4551.5, and 4553, Public Resources Code. Reference: Sections 4512, 4513, 4527, 4562.5, 4562.7, and 4582, Public Resources Code.

**Amend §§ 916, 936, and 956 Intent of Watercourse and Lake Protection.**

The purpose of this article is to ensure that the beneficial uses of water, native aquatic and riparian species, and the beneficial functions of riparian zones are protected from potentially significant adverse site-specific and cumulative impacts associated with timber operations.

It is the intent of the Board to restore, enhance, and maintain the productivity of timberlands while providing equal consideration for the beneficial uses of water. Further, it is the intent of the Board to clarify and assign responsibility for recognition of potential and existing impacts of timber operations on watercourses and lakes, native aquatic and riparian-associated species, and the beneficial functions of riparian zones and to ensure adoption of feasible measures to effectively achieve compliance with this article. Further, it is the intent of the Board that the evaluations that are made, and the measures that are taken or prescribed, be documented in a manner that clearly and accurately represents those existing conditions and those measures. "Evaluations made" pertain to the assessment of the conditions of the physical form, water quality, and biological characteristics of watercourses and lakes, including cumulative impacts affecting the beneficial uses of water on both the area of planned logging operations and in the Watershed Assessment Area (WAA). "Measures taken" pertain to the procedures used or prescribed for the restoration, enhancement, and maintenance of the beneficial uses of water.

All provisions of this article shall be applied in a manner, which complies with the following:

(a) During and following timber operations, the beneficial uses of water, native aquatic and riparian-associated species, and the beneficial functions of riparian zones shall be maintained where they are in good condition, protected where they are threatened, and insofar as feasible, restored where they are impaired.

1 (b) Protection of the quality and beneficial uses of water during the planning, review, and conduct of timber  
2 operations shall comply with all applicable legal requirements including those set forth in any applicable water quality  
3 control plan adopted or approved by the State Water Resources Control Board. At a minimum, the LTO shall not do  
4 either of the following during timber operations:

5 (1) Place, discharge, or dispose of or deposit in such a manner as to permit to pass into the waters of the  
6 state, any substances or materials, including, but not limited to, soil, silt, bark, slash, sawdust, or petroleum, in  
7 quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water;

8 (2) Remove water, trees or large woody debris from a watercourse or lake, the adjacent riparian area, or the  
9 adjacent flood plain in quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and  
10 beneficial uses of water.

11 (c) Protecting and restoring native aquatic and riparian-associated species, the beneficial functions of  
12 riparian zones and the quality and beneficial uses of water shall be given equal consideration as a management  
13 objective within any prescribed WLPZ and within any ELZ or EEZ designated for watercourse or lake protection.

14 (d) The measures set forth in this Section are meant to enforce the public's historical and legal interest in  
15 protection for wildlife, fish, and water quality and are to be used to guide timberland owners in meeting their legal  
16 responsibilities to protect public trust resources.

17 (e) The amendments to 14 CCR §§ 916 [936, 956] that became effective July 1, 2000 shall expire on  
18 December 31, ~~2002~~ 2003.

19 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 4512,  
20 4513, 4551.5, 4552, 4562.5, 4562.7, 21001(b), (f), 21002 and 21002.1, Public Resources Code; and Sections 100,  
21 1243, 1243.5, 13001, 13050(f), 13146 and 13147, Water Code.

#### 22 **Amend §§ 916.2, 936.2, and 956.2 Protection of the Beneficial Uses of Water and Riparian Functions.**

23 (a) The measures used to protect each watercourse and lake in a logging area shall be determined by the  
24 presence and condition of the following values:

25 (1) The existing and restorable quality and beneficial uses of water as specified by the applicable water  
quality control plan and as further identified and refined during preparation and review of the plan.

(2) The restorable uses of water for fisheries as identified by the DFG or as further identified and refined  
during preparation and review of the plan.

(3) Riparian habitat that provides for the biological needs of native aquatic and riparian-associated species  
as specified in 14 CCR 916.4(b) [936.4(b), 956.4(b)].

(4) Sensitive conditions near watercourses and lakes as specified in 14 CCR 916.4(a) [936.4(a), 956.4(a)].  
These values shall be protected from potentially significant adverse impacts from timber operations and restored to  
good condition, where needed, through a combination of the rules and plan-specific mitigation. The RPF shall  
propose and the Director may require, adequate protection of overflow and changeable channels which are not  
contained within the channel zone.

(b) The State's waters are grouped into four classes based on key beneficial uses. These classifications  
shall be used to determine the appropriate minimum protection measures to be applied during the conduct of timber  
operations. The basis for classification (characteristics and key beneficial uses) are set forth in 14 CCR 916.5 [936.5,  
956.5], Table 1 and the range of minimum protective measures applicable to each class are contained in 14 CCR  
916.3 [936.3, 956.3], 916.4 [936.4, 956.4], and 916.5 [936.5, 956.5].

(c) When the protective measures contained in 14 CCR 916.5 [936.5, 956.5] are not adequate to provide  
protection to beneficial uses, feasible protective measures shall be developed by the RPF or proposed by the Director  
under the provisions of 14 CCR 916.6 [936.6, 956.6], Alternative Watercourse and Lake Protection, and incorporated  
in the plan when approved by the Director.

(d) The amendments to 14 CCR §§ 916.2 [936.2, 956.2] that became effective July 1, 2000 shall expire on December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

**Amend §§ 916.9, 936.9, and 956.9 Protection and Restoration in Watersheds with Threatened or Impaired Values.**

In addition to all other district Forest Practice Rules, the following requirements shall apply in any planning watershed with threatened or impaired values:

(a) GOAL - Every timber operation shall be planned and conducted to prevent deleterious interference with the watershed conditions that primarily limit the values set forth in 14 CCR 916.2 [936.2, 956.2](a) (e.g., sediment load increase where sediment is a primary limiting factor; thermal load increase where water temperature is a primary limiting factor; loss of instream large woody debris or recruitment potential where lack of this value is a primary limiting factor; substantial increase in peak flows or large flood frequency where peak flows or large flood frequency are primary limiting factors). To achieve this goal, every timber operation shall be planned and conducted to meet the following objectives where they affect a primary limiting factor:

(1) Comply with the terms of a Total Maximum Daily Load (TMDL) that has been adopted to address factors that may be affected by timber operations if a TMDL has been adopted, or not result in any measurable sediment load increase to a watercourse system or lake.

(2) Not result in any measurable decrease in the stability of a watercourse channel or of a watercourse or lake bank.

(3) Not result in any measurable blockage of any aquatic migratory routes for anadromous salmonids or listed species.

(4) Not result in any measurable stream flow reductions during critical low water periods except as part of an approved water drafting plan pursuant to 14 CCR 916.9(r) [936.9(r), 956.9(r)].

(5) Consistent with the requirements of 14 CCR § 916.9(i), 14 CCR § 936.9(i), or 14 CCR § 956.9(i); protect, maintain, and restore trees (especially conifers), snags, or downed large woody debris that currently, or may in the foreseeable future, provide large woody debris recruitment needed for instream habitat structure and fluvial geomorphic functions.

(6) Consistent with the requirements of 14 CCR § 916.9(g), 14 CCR § 936.9(g), or 14 CCR § 956.9(g); protect, maintain, and restore the quality and quantity of vegetative canopy needed to:

(A) provide shade to the watercourse or lake,

(B) minimize daily and seasonal temperature fluctuations,

(C) maintain daily and seasonal water temperatures within the preferred range for anadromous salmonids or listed species where they are present or could be restored, and

(D) provide hiding cover and a food base where needed.

(7) Result in no substantial increases in peak flows or large flood frequency.

(b) Pre-plan adverse cumulative watershed effects on the populations and habitat of anadromous salmonids shall be considered. The plan shall specifically acknowledge or refute that such effects exist. Where appropriate, the plan shall set forth measures to effectively reduce such effects.

(c) Any timber operation or silvicultural prescription within 150 feet of any Class I watercourse or lake transition line or 100 feet of any Class II watercourse or lake transition line shall have protection, maintenance, or restoration of the beneficial uses of water or the populations and habitat of anadromous salmonids or listed aquatic or riparian-associated species as significant objectives.

Additionally, for evenaged regeneration methods and rehabilitation with the same effects as a clearcut that

are adjacent to a WLPZ, a special operating zone shall retain understory and mid-canopy conifers and hardwoods. These trees shall be protected during falling, yarding and site preparation to the extent feasible. If trees that are retained within this zone are knocked down during operations, that portion of the trees that is greater than 6" in diameter shall remain within the zone as Large Woody Debris. The zone shall be 25 feet above Class I WLPZs with slopes 0-30% and 50 feet above Class I WLPZs with slopes > 30%.

(d)(1) The plan shall fully describe:

(A) the type and location of each measure needed to fully offset sediment loading, thermal loading, and potential significant adverse watershed effects from the proposed timber operations, and

(B) the person(s) responsible for the implementation of each measure, if other than the timber operator.

(2) In proposing, reviewing, and approving such measures, preference shall be given to the following:

(A) measures that are both onsite (i.e., on or near the plan area) and in-kind (i.e., erosion control measures where sediment is the problem), and

(B) sites that are located to maximize the benefits to the impacted portion of a watercourse or lake. Out-of-kind measures (i.e., improving shade where sediment is the problem) shall not be approved as meeting the requirements of this subsection.

(e) Channel zone requirements

(1) There shall be no timber operations within the channel zone with the following exceptions:

(A) timber harvesting that is directed to improve salmonid habitat through the limited use of the selection or commercial thinning silvicultural methods with review and comment by DFG.

(B) timber harvesting necessary for the construction or reconstruction of approved watercourse crossings.

(C) timber harvesting necessary for the protection of public health and safety.

(D) to allow for full suspension cable yarding when necessary to transport logs through the channel zone.

(E) Class III watercourses where exclusion of timber operations is not needed for protection of listed salmonids.

(2) In all instances where trees are proposed to be felled within the channel zone, a base mark shall be placed below the cut line of the harvest trees within the zone. Such marking shall be completed by the RPF that prepared the plan prior to the preharvest inspection.

(f) The minimum WLPZ width for Class I waters shall be 150 feet from the watercourse or lake transition line. Where a proposed THP is located within the Sacramento or San Joaquin river drainages, and the Director, DFG, and the National Marine Fisheries Service concur; the RPF may explain and justify other WLPZ widths on areas where even aged regeneration methods, seed tree removal, shelterwood removal, alternative prescriptions, or rehabilitation will not be utilized adjacent to watercourse and lake protection zones and where slopes are less than 30%.

(g) Within a WLPZ for Class I waters, at least 85 percent overstory canopy shall be retained within 75 feet of the watercourse or lake transition line, and at least 65 percent overstory canopy within the remainder of the WLPZ. The overstory canopy must be composed of at least 25% overstory conifer canopy post-harvest. Where a proposed THP is located within the Sacramento or San Joaquin river drainages, and the Director, DFG, and the National Marine Fisheries Service concur; the RPF may explain and justify other canopy retention standards on areas where even aged regeneration methods, seed tree removal, shelterwood removal, alternative prescriptions, or rehabilitation will not be utilized adjacent to watercourse and lake protection zones and where slopes are less than 30%. Harvesting of hardwoods shall only occur for the purpose of enabling conifer regeneration.

(h) For Class I waters, any plan involving timber operations within the WLPZ shall contain the following information:

(1) A clear and enforceable specification of how any disturbance or log or tree cutting and removal within the Class I WLPZ shall be carried out to conform with 14 CCR 916.2 [936.2, 956.2](a) and 916.9 [936.9, 956.9](a).

(2) A description of all existing permanent crossings of Class I waters by logging roads and clear specification regarding how these crossings are to be modified, used, and treated to minimize risks, giving special attention to allowing fish to pass both upstream and downstream during all life stages.

(3) Clear and enforceable specifications for construction and operation of any new crossing of Class I waters to prevent direct harm, habitat degradation, water velocity increase, hindrance of fish passage, or other potential

1 impairment of beneficial uses of water.

2 (i) Recruitment of large woody debris for aquatic habitat in Class I anadromous fish-bearing or restorable  
3 waters shall be ensured by retaining the ten largest dbh conifers (live or dead) per 330 feet of stream channel length  
4 that are the most conducive to recruitment to provide for the beneficial functions of riparian zones. The retained  
5 conifers shall be selected from within the THP area that lies within 50 feet of the watercourse transition line. Where  
6 the THP boundary is an ownership boundary, a class I watercourse, and the WLPZ on both sides of the watercourse  
7 currently meets the stocking under 14 CCR 912.7[932.7,952.7](b)(2)} timberland; the five (5) largest dbh conifers  
8 (live or dead) per 330 feet of stream channel length that are the most conducive to recruitment to provide for the  
9 beneficial functions of riparian zones within the THP area shall be retained within 50 feet of the watercourse transition  
10 line.

11 The RPF may propose alternatives to substitute smaller diameter trees, trees that are more than 50 feet  
12 from the watercourse transition line, or other alternatives on a site specific basis. The RPF must explain and justify in  
13 the THP why the proposed alternative is more conducive to current and long-term Large Woody Debris recruitment,  
14 shading, bank stability, and the beneficial functions of riparian zones.

15 (j) Where an inner gorge extends beyond a Class I WLPZ and slopes are greater than 55%, a special  
16 management zone shall be established where the use of evenaged regeneration methods is prohibited. This zone  
17 shall extend upslope to the first major break-in-slope to less than 55% for a distance of 100 feet or more, or 300 feet  
18 as measured from the watercourse or lake transition line, whichever is less. All operations on slopes exceeding 65%  
19 within an inner gorge of a Class I or II watercourse shall be reviewed by a Registered Geologist prior to plan  
20 approval, regardless of whether they are proposed within a WLPZ or outside of a WLPZ.

21 (k) From October 15 to May 1, the following shall apply:

22 (1) no timber operations shall take place unless the approved plan incorporates a complete winter period  
23 operating plan pursuant to 14 CCR 914.7(a) [934.7(a), 954.7(a)],

24 (2) unless the winter period operating plan proposes operations during an extended period with low  
25 antecedent soil wetness, no tractor roads shall be constructed, reconstructed, or used on slopes that are over 40  
percent and within 200 feet of a Class I, II, or III watercourse, as measured from the watercourse or lake transition  
line, and

(3) operation of trucks and heavy equipment on roads and landings shall be limited to those with a stable  
operating surface.

(l) Construction or reconstruction of logging roads, tractor roads, or landings shall not take place during the  
winter period unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR  
914.7(a) [934.7(a), 954.7(a)] that specifically address such road construction. Use of logging roads, tractor roads, or  
landings shall not take place at any location where saturated soil conditions exist, where a stable logging road or  
landing operating surface does not exist, or when visibly turbid water from the road, landing, or skid trail surface or  
inside ditch may reach a watercourse or lake. Grading to obtain a drier running surface more than one time before  
reincorporation of any resulting berms back into the road surface is prohibited.

(m) All tractor roads shall have drainage and/or drainage collection and storage facilities installed as soon as  
practical following yarding and prior to either:

(1) the start of any rain which causes overland flow across or along the disturbed surface within a WLPZ or  
within any ELZ or EEZ designated for watercourse or lake protection, or

(2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash  
flood warning, or a flash flood watch.

(n) Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake protection, treatments  
to stabilize soils, minimize soil erosion, and prevent the discharge of sediment into waters in amounts deleterious to  
aquatic species or the quality and beneficial uses of water, or that threaten to violate applicable water quality  
requirements, shall be applied in accordance with the following standards:

(1) The following requirements shall apply to all such treatments.

(A) They shall be described in the plan.

(B) For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of

any rain that may cause overland flow across or along the disturbed surface.

(C) For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days, whichever is earlier.

(2) The traveled surface of logging roads shall be treated to prevent waterborne transport of sediment and concentration of runoff that results from timber operations.

(3) The treatment for other disturbed areas, including:

(A) areas exceeding 100 contiguous square feet where timber operations have exposed bare soil,

(B) approaches to tractor road watercourse crossings between the drainage facilities closest to the crossing,

(C) road cut banks and fills, and

(D) any other area of disturbed soil that threatens to discharge sediment into waters in amounts deleterious to the quality and beneficial uses of water, may include, but need not be limited to, mulching, rip-rapping, grass seeding, or chemical soil stabilizers. Where straw, mulch, or slash is used, the minimum coverage shall be 90%, and any treated area that has been subject to reuse or has less than 90% surface cover shall be treated again prior to the end of timber operations. The RPF may propose alternative treatments that will achieve the same level of erosion control and sediment discharge prevention.

(4) Where the undisturbed natural ground cover cannot effectively protect beneficial uses of water from timber operations, the ground shall be treated by measures including, but not limited to, seeding, mulching, or replanting, in order to retain and improve its natural ability to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.

(o) As part of the plan, the RPF shall identify active erosion sites in the logging area, assess them to determine which sites pose significant risks to the beneficial uses of water, assess them to determine whether feasible remedies exist, and address in the plan feasible remediation for all sites that pose significant risk to the beneficial uses of water.

(p) The erosion control maintenance period on permanent and seasonal roads and associated landings that are not abandoned in accordance with 14 CCR 923.8[943.3,963.8] shall be three years.

(q) Site preparation activities shall be designed to prevent soil disturbance within, and minimize soil movement into, the channels of watercourses. Prior to any broadcast burning, burning prescriptions shall be designed to prevent loss of large woody debris in watercourses, and vegetation and duff within a WLPZ, or within any ELZ or EEZ designated for watercourse or lake protection. No ignition is to occur within any WLPZ, or within any ELZ or EEZ designated for watercourse or lake protection. When burning prescriptions are proposed, the measures or burning restrictions which are intended to accomplish this goal shall be stated in the plan and included in any required burning permit. This information shall be provided in addition to the information required under 14 CCR 915.4 [935.4, 955.4].

(r) Water drafting for timber operations from within a channel zone of a natural watercourse or from a lake shall conform with the following standards:

(1) The RPF shall incorporate into the THP:

(A) a description and map of proposed water drafting locations,

(B) the watercourse or lake classification, and

(C) the general drafting location use parameters (i.e., yearly timing, estimated total volume needed, estimated total uptake rate and filling time, and associated water drafting activities from other THPs).

(2) On Class I and Class II streams where the RPF has estimated that:

(A) bypass flows are less than 2 cubic feet per second, or

(B) pool volume at the water drafting site would be reduced by 10%, or

(C) diversion rate exceeds 350 gallons per minute, or

(D) diversion rate exceeds 10% of the above surface flow; no water drafting shall occur unless the RPF prepares a water drafting plan to be reviewed by DFG and approved by the Director.

The water drafting plan shall include, but not be limited to:

1. disclosure of estimated percent streamflow reduction and duration of reduction,



2. discussion of the effects of single pumping operations, or multiple pumping operations at the same location,

3. proposed alternatives and discussion to prevent adverse effects (e.g. reduction in hose diameter, reduction in total intake at one location, described allowances for recharge time, and alternative water drafting locations),

4. conditions for operators to include an operations log kept on the water truck containing the following information: Date, Time, Pump Rate, Filling Time, Screen Cleaned, Screen Conditions, and Bypass flow observations,

5. a statement by the RPF for a pre-operations field review with the operator to discuss the conditions in the water drafting plan.

(3) Intakes shall be screened in Class I and Class II waters. Screens shall be designed to prevent the entrainment or impingement of all life stages of fish or amphibians. Screen specifications shall be included in the plan.

(4) Approaches to drafting locations within a WLPZ shall be surfaced with rock or other suitable material to avoid generation of sediment.

(s) No timber operations are allowed in a WLPZ, or within any ELZ or EEZ designated for watercourse or lake protection, under emergency notices or exemption notices except for hauling on existing roads, road maintenance, operations conducted for public safety, construction or reconstruction of approved watercourse crossings, conditions which have a letter of concurrence from DFG and the National Marine Fisheries Service and temporary crossings of dry Class III watercourses which do not require a "Streambed Alteration Agreement" under the Fish and Game Code.

(t) No salvage logging is allowed in a WLPZ without an approved HCP, an SYP, or an approved plan that contains a section that sets forth objectives, goals, and measurable results for streamside salvage operations.

(u) Nonstandard practices (i.e., waivers, exceptions, in-lieu practices, and alternative practices) shall comply with the goal set forth in subsection (a) above as well as with the other requirements set forth in the rules.

(v) The Director may approve alternatives provided the alternative practice will achieve the goal of this section. The Director shall not accept for inclusion in a plan any alternative practice as described in this section where two or more agencies listed in 4582.6 of the PRC and 14 CCR 1037.3 have submitted written comments which lead to the Director's conclusion that the proposed alternative will not meet the goal of this section and the agency(ies) participated in the review of the plan, including an on-the-ground inspection.

(w) Other measures that would effectively achieve the goal set forth in 14 CCR 916.9(a) [936.9(a), 956.9(a)] may be approved in accordance with 14 CCR 916.6 [936.6, 956.6].

(x) The provisions of 14 CCR 916.9 [936.9, 956.9] shall not apply to a plan that is subject to an incidental take permit based upon an approved Habitat Conservation Plan that addresses anadromous salmonid protection.

(y) This section shall expire on December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

#### **Amend §§ 916.11, 936.11, and 956.11 Effectiveness and Implementation Monitoring**

(a) Where timber operations will be conducted within a WLPZ, the Director may require a post-harvest evaluation of the effectiveness of the mitigations and practices designed to protect the watercourse(s) or lake(s) as a condition of plan approval. The Director shall require such an evaluation if the necessity for the evaluation is supported by substantial evidence in the record. This evidence may include, but is not limited to, potential land failures, accelerated rate of road construction or harvesting within a watershed, concentration or intensity of harvesting activity near watercourses, and potential for accelerated windthrow. The design and implementation of the

evaluation shall be done in consultation with the Director, the RWQCB or DFG, and THP submitter, and the sufficiency of the information requested by the Director shall be judged in light of reasonableness and practicality. The evaluation may utilize procedures including, but not limited, to:

- (1) Procedures for effectiveness and implementation monitoring,
  - (2) Existing landowner monitoring programs, or
  - (3) Photographic monitoring
- (b) This section shall expire on December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

#### **Amend §§ 916.12, 936.12, and 956.12 Section 303(d) Listed Watersheds**

For any planning watershed in which timber operations could contribute to the pollutants or stressors which have been identified as limiting water quality in a water body listed pursuant to 303(d) Federal Clean Water Act, the following shall apply:

(a) The Department shall, in collaboration with the appropriate RWQCB and SWRCB, prioritize watersheds in which the following will be done:

- (1) conduct or participate in any further assessment or analysis of the watershed that may be needed,
- (2) participate in the development of Total Maximum Daily Load (TMDL) problem assessment, source assessment, or load allocations related to timber operations, and
- (3) if existing rules are deemed not to be sufficient, develop recommendations for watershed-specific silvicultural implementation, enforcement and monitoring practices to be applied by the Department.

(b) The Department shall prepare a report setting forth the Department's findings and recommendations from the activities identified pursuant to (a) above. The report shall be submitted to the Board and the appropriate RWQCB. The report shall be made available to the public upon request and placed on the Boards' website for a 90-day period.

(c) Where the Department has recommended that the adoption of watershed specific rules is needed, the Board shall consider that recommendation as a proposal for rulemaking under the Administrative Procedures Act (Section 11340 et. seq. Gov Code) and shall begin that process within 180 days following receipt of that report.

(d) These watershed specific rules shall be developed in collaboration with the appropriate RWQCB, the landowner(s) or designee with land in the planning watershed, and other persons or groups within the watershed, and may also be incorporated into a TMDL implementation plan.

(e) The watershed specific rules shall remain in effect until the water body has been removed from the 303(d) list, or that the Board finds, after consulting with the appropriate RWQCB, that timber operations are no longer a significant source of the pollutant or stressor that limits water quality in the listed water body.

(f) This section shall expire on December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

#### **Amend §§ 923.3, 943.3, and 963.3 Watercourse Crossings**

Watercourse crossing drainage structures on logging roads shall be planned, constructed, reconstructed, and maintained or removed, according to the following standards. Exceptions may be provided through application of Fish and Game Code Sections 1601 and 1603 and shall be included in the THP.

1 (a) The location of all new permanent watercourse crossing drainage structures and temporary crossings  
2 located within the WLPZ shall be shown on the THP map. If the structure is a culvert intended for permanent use, the  
3 minimum diameter of the culvert shall be specified in the plan. Extra culverts beyond those shown in the THP map  
4 may be installed as necessary.

5 (b) The number of crossings shall be kept to a feasible minimum.

6 (c) Drainage structures on watercourses that support fish shall allow for unrestricted passage of all life  
7 stages of fish that may be present, and shall be fully described in the plan in sufficient clarity and detail to allow  
8 evaluation by the review team and the public, provide direction to the LTO for implementation, and provide  
9 enforceable standards for the inspector.

10 (d) When watercourse crossings, other drainage structures, and associated fills are removed the following  
11 standards shall apply:

12 (1) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse  
13 grade and orientation, and that is wider than the natural channel.

14 (2) The excavated material and any resulting cut bank shall be sloped back from the channel and stabilized  
15 to prevent slumping and to minimize soil erosion. Where needed, this material shall be stabilized by seeding,  
16 mulching, rock armoring, or other suitable treatment.

17 (e) All permanent watercourse crossings that are constructed or reconstructed shall accommodate the  
18 estimated 100-year flood flow, including debris and sediment loads.

19 (f) Permanent watercourse crossings and associated fills and approaches shall be constructed or  
20 maintained to prevent diversion of stream overflow down the road and to minimize fill erosion should the drainage  
21 structure become obstructed. The RPF may propose an exception where explained in the THP and shown on the  
22 THP map and justified how the protection provided by the proposed practice is at least equal to the protection  
23 provided by the standard rule.

24 (g) Any new permanent culverts installed within class I watercourses shall allow upstream and downstream  
25 passage of fish or listed aquatic species during any life stage and for the natural movement of bedload to form a  
continuous bed through the culvert and shall require an analysis and specifications demonstrating conformance with  
the intent of this section and subsection.

(h) The amendments to 14 CCR §§ 923.3 [943.3, 963.3] that became effective July 1, 2000, shall expire on  
December 31, ~~2002~~ 2003.

Note: Authority cited: Sections 4551, 4551.5, and 21004, Public Resources Code. Reference: Sections 4512, 4513,  
4551, 4551.5, 4562.5 and 4562.7, Public Resources Code; 40 CFR 130.2(q); and California Case Law: *Natural  
Resources Defense Council, Inc. v. Arcata Natl. Corp.* (1972) 59 Cal. App. 3d 959, 131 Cal Rptr. 172.

**Amend §§ 923.9 [943.9, 963.9] Roads and Landings in Watersheds with Threatened or Impaired Values.**

In addition to all other district Forest Practice Rules, the following requirements shall apply in any planning  
watershed with threatened or impaired values:

(a) Where logging road or landing construction or reconstruction is proposed, the plan shall state the  
locations of and specifications for road or landing abandonment or other mitigation measures to minimize the adverse  
effects of long-term site occupancy of the transportation system within the watershed.

(b) Unless prohibited by existing contracts with the U.S.D.A. Forest Service or other federal agency, new  
and reconstructed logging roads shall be no wider than a single-lane compatible with the largest type of equipment  
specified for use on the road, with adequate turnouts provided as required for safety. The maximum width of these  
roads shall be specified in the plan. These roads shall be outsloped where feasible and drained with water breaks or  
rolling dips (where the road grade is inclined at 7 percent or less), in conformance with other applicable Forest  
Practice Rules.

1 (c) The following shall apply on slopes greater than 50%:

2 (1) Specific provisions of construction shall be identified and described for all new roads.

3 (2) Where cutbank stability is not an issue, roads may be constructed as a full-benched cut (no fill). Spoils  
not utilized in road construction shall be disposed of in stable areas with less than 30 percent slope and outside of  
any WLPZ, EEZ, or ELZ.

4 (3) Alternatively, roads may be constructed with balanced cuts and fills if properly engineered, or fills may be  
removed with the slopes recontoured prior to the winter period.

5 (d) In addition to the provisions listed under 14 CCR 923.1(e) [943.1(e), 963.1(e)], all permanent or seasonal  
logging roads with a grade of 15% or greater that extends 500 continuous feet or more shall have specific erosion  
control measures stated in the plan.

6 (e) Where situations exist that elevate risks to the values set forth in 14 CCR 916.2(a), [936.2(a), 956.2(a)]  
(e.g., road networks are remote, the landscape is unstable, water conveyance features historically have a high failure  
rate, culvert fills are large) drainage structures and erosion control features shall be oversized, low maintenance, or  
reinforced, or they shall be removed before the completion of the timber operation. The method of analysis and the  
design for crossing protection shall be included in the plan.

8 (f) The provisions of 14 CCR 923.9 [943.9, 963.9] shall not apply to a plan that is subject to an incidental  
take permit based upon an approved Habitat Conservation Plan that addresses anadromous salmonid protection.

10 (g) This section shall expire on December 31, ~~2002~~ 2003.

11 Note: Authority cited: Sections 4551, 4551.5, 4553, 4562.7 and 21000(g), Public Resources Code. Reference:  
12 Sections 751, 4512, 4513, 4551, 4551.5, 4562.5, 4562.7, 21000(g), 21001(b) and 21002.1, Public Resources Code;  
Sections 100, 1243, 13050(f) Water Code; Sections 1600 and 5650(c), Fish and Game Code; and *Natural Resources*  
*Defense Council, Inc. v. Arcata Natl. Corp.* (1976) 59 Cal.App. 3d 959, 131 Cal.Rptr. 172.

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